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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/068,243	02/06/2002	Bryan Spiess	A490-003	8499

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EXAMINER

JIMENEZ, MARC QUEMUEL

ART UNIT

PAPER NUMBER

3726

DATE MAILED: 11/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/068,243	SPIESS, BRYAN	
	Examiner	Art Unit	
	Marc Jimenez	3726	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-13 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-13 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

Oath/Declaration

1. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because: Priority is claimed under 35 USC 120 of provisional application no. 60/103,536 which is listed as having a filing date of February 6, 2001. However, according to PTO records, the filing date of the provisional application is October 8, 1998. Since the instant application has a filing date of February 6, 2002, priority to the provisional application cannot be claimed.

Provisional Application

2. In response to this office action, applicant is requested to submit any information which may be published or was in public use with respect to the content of the provisional application 60/103,536 and the relevant dates of any published document or public use.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. **Claims 1, 5, 7, and 10** are rejected under 35 U.S.C. 102(b) as being anticipated by Lawrence et al. (5,655,642).

Lawrence et al. teach a roller system having at least one operable roller unit (fig. 3A), each roller unit comprising: a roller 16, cylindrical in shape having a length and a diameter, the roller 16 having a center aperture (surrounding 14) extending through the length of the roller 16 and the roller 16 being fabricated from a polymer (col. 3, lines 12-17), a shaft 12 in the form of an elongate cylinder having a diameter sized to rotatably fit within the central aperture of the roller 16, the shaft 12 further having a means for retention 34 located upon the shaft 12 ends, an elongate "U" shaped roller rack 17, the roller rack 17 sized to extend the length of the roller 16 and having a pair of upwardly extending ends 19 located adjacent the ends of the roller 10A, each end 19 having an aperture (see in the vicinity of lead line 13 in fig. 2) to receive the respective shaft end 12 and locate the shaft 12 in a fixed location.

Note the pair of bearings 32 having central openings fitted within the central aperture of the roller 16 and attached to the roller 16 sized to rotatably accept the shaft 12 within their respective central openings.

5. **Claims 6, 7, and 11** are rejected under 35 U.S.C. 102(b) as being anticipated by Burke (5,542,900).

Burke teaches a roller comprising: an outer housing 30 constructed from a polymer selected from the group of polysulfone, polyetherimide, polyetherketone, polyphenylene sulfide, and polyvinylidene fluoride (col. 7, line 20, ie. "polyphenylene sulfide"), the outer housing 30

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further having a central aperture **40** disposed longitudinally therethrough, and a bearing **33** (col. 3, line 12) located surrounding the central aperture **40** and attached to the outer housing **30**. Burke teaches using a polyphenylene sulfide (col. 7, line 20) which has the claimed physical properties because applicant discloses that polyphenylene sulfide as being a polymer that could be used (page 5, line 10). Therefore, the polyphenylene sulfide of Burke has the claimed physical properties.

6. **Claims 7, 8, and 10** are rejected under 35 U.S.C. 102(b) as being anticipated by Marcus et al. (5,217,099).

Marcus et al. teach a monolithic roller comprising a cylindrical roller body **10**, the roller body **10** having a length and a diameter, the roller **10** also having an aperture **14** extending along and through the center of the roller **10**, the roller **10** fabricated from a polymeric material (col. 3, lines 18-20). Note the pair of bushings/bearings **12** fitted within aperture of the roller **10** extending inwardly into the aperture **14** the roller **10**.

7. **Claim 13** is rejected under 35 U.S.C. 102(b) as anticipated by Lawrence et al. or, in the alternative, under 35 U.S.C. 103(a) as obvious over Lawrence et al. in view of Burke.

It is inherent that the polymer coating of Lawrence et al. has a compressibility strength of at least 20psi, impact strength of at least 0.5ft lbs/in and flexural strength of at least 20 psi because the polymer of Lawrence et al. could be made of polyethylene (col. 3, line 14-16) and is used to support bulk material such as coal, sand, and widgets (col. 1, lines 10-11). However, if applicant shows convincing evidence that Lawrence et al. does not inherently teach the claimed

physical properties of the polymer, Burke teaches using a polyphenylene sulfide (col. 7, line 20) which has the claimed physical properties because applicant discloses that polyphenylene sulfide as being a polymer that could be used (page 5, line 10). Therefore, the polyphenylene sulfide of Burke has the claimed physical properties. It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Lawrence et al. with the claimed physical properties of the polymer, in light of the teachings of Burke, in order to provide a polymer material that has the desired physical properties.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claims 1, 4, and 5** are rejected under 35 U.S.C. 103(a) as being unpatentable over Marcus et al. (5,217,099) in view of Frost et al. (4,213,523).

Marcus et al. teach a roller system having at least one operable roller unit (fig. 2), each roller unit comprising: a roller 10 cylindrical in shape having a length and a diameter, the roller 10 having a central aperture 14 extending through the length of the roller 10 and the roller 10 being fabricated from a polymer (col. 3, lines 18-20), a shaft 18 (col. 2, line 57) in the form of an elongate cylinder having a diameter sized to rotably fit within the central aperture 14 of the roller 10, the shaft 18 further having a means for retention located upon the shaft ends 18, a roller

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rack **12** sized to extend the length of the roller and having a pair of axially extending ends **20** located adjacent the ends of the roller **10**, each end **20** having an aperture sized to receive the respective shaft end **18** and locate the shaft **18** in a fixed location.

Marcus et al. teach the invention cited above with the exception of the rack being an elongate "U".

Frost et al. teach an elongate "U" shaped roller rack (fig. 2). Note also that Frost et al. teach means for retention **56** located upon shaft ends **52**.

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Marcus et al. with an elongate "U" shaped roller rack, in light of the teachings of Frost et al., in order to provide a rack that is structurally stronger.

Note that Marcus et al. teach a pair of bushings/bearings **12** having central openings fitted within the central aperture **14** of the roller **10** and attached to the roller **10** sized to rotatably accept the shaft **18** within their respective central openings.

10. **Claims 2, 3, 11, and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lawrence et al. in view of Burke.

Lawrence et al. teach the invention cited above with the exception of the polymer forming the roller being a polymer selected from the claimed materials.

Burke teaches a polymer forming a roller made from polyphenylene sulfide (col. 7, line 20, ie. "polyphenylene sulfide").

It would have been obvious to one of ordinary skill in the art, at the time of the invention,

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to have provided the invention of Lawrence et al. with polyphenylene sulfide to form the roller, in light of the teachings of Burke, in order to provide a hard and smooth roll as suggested by Burke at col. 7, lines 11-12.

With respect to Claims 3 and 12, at the time of the invention, it would have been an obvious matter of design choice to a person of ordinary skill in the art to have used acetyl copolymer as the polymeric material because applicant has not disclosed that using acetyl copolymer provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected applicant's invention to perform equally well with polyphenylene sulfide as the polymer as taught by Burke, or the claimed acetyl copolymer because both polymers perform the same function of providing a roller surface that has compressibility and strength. Furthermore, in applicant's specification at page 5, lines 8-13, there is a listing of different polymers that could be used and are suitable for the rollers and there is no indication that one polymer is better than another.

11. **Claims 8 and 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lawrence et al.

Lawrence et al. teach a bushing 14 fitted within the aperture of the roller 16 (see fig. 3A).

However, the bushing is not made of a pair of bushings that is merged into a single bushing.

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have separated the prior art reference, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman*,

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168 USPQ 177, 179. Furthermore, at the time of the invention, it would have been an obvious matter of design choice to a person of ordinary skill in the art, to have made the bushing of a pair of bushings because applicant has not disclosed that making the bushing into a pair provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected applicant's invention to perform equally well with either the single bushing that extends the length of the roller as taught by Lawrence et al. or the claimed pair of bushings that extends the length of the roller because both bushings perform the same function of supporting the roller considering the length of the roller. Therefore, it would have been an obvious matter of design choice to modify Lawrence et al. to obtain the invention as specified in claims 8 and 9. Furthermore, official notice is taken that it is well known in the art to have made a single piece into multiple pieces.

12. **Claim 13** is rejected under 35 U.S.C. 103(a) as being unpatentable over Marcus et al. in view of Burke.

Marcus et al. does not specifically teach that the polymer ("PVC" in col. 4, line 40) has a compressibility strength of at least 20psi, an impact strength of at least 0.5ft lbs/in and a flexural strength of at least 20 psi.

Burke teaches using a polyphenylene sulfide (col. 7, line 20) material in a roll, which has the claimed physical properties because applicant discloses that polyphenylene sulfide as being a polymer that could be used (page 5, line 10) in a roll. Therefore, the polyphenylene sulfide of Burke has the claimed physical properties. It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Marcus et al. with the

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claimed physical properties of the polymer, in light of the teachings of Burke, in order to provide a polymer material that has the desired physical properties.

Contact Information

13. Telephone inquiries regarding the status of applications or other general questions, by persons entitled to the information, should be directed to the group clerical personnel. In as much as the official records and applications are located in the clerical section of the examining groups, the clerical personnel can readily provide status information. M.P.E.P. 203.08. The Group clerical receptionist number is (703) 308-1148.

If in receiving this Office Action it is apparent to applicant that certain documents are missing, e.g., copies of references cited, form PTO-1449, form PTO-892, etc., requests for copies of such papers or other general questions should be directed to Tech Center 3700 Customer Service at (703) 306-5648, or fax (703) 872-9301 or by email to

CustomerService3700@uspto.gov.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Jimenez whose telephone number is **703-306-5965**. The examiner can normally be reached on **Monday-Thursday and the second Friday of the bi-week, between 9am-6pm.**

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Vidovich can be reached on 703-308-1513. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-872-9303 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

Other helpful telephone numbers are listed for applicant's benefit.

Allowed Files & Publication	(703) 308-6789 or (888) 786-0101
Assignment Branch	(703) 308-9723
Certificates of Correction	(703) 305-8309
Drawing Corrections/Draftsman	(703) 305-8404/8335
Petitions/Special Programs	(703) 305-9285
Terminal Disclaimers	(703) 305-8408
PCT Help Desk	(703) 305-3257

If the information desired is not provided above, or a number has been changed, please call the general information help line below.

Information Help line	1-800-786-9199
Internet PTO-Home Page	http://www.uspto.gov/

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November 14, 2002

Greg Vidovich
GREGORY M. VIDOVICH
PRIMARY EXAMINER